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FLORAE MALESIANAE PRAECURSORES LXVI
APOCYNACEAE VII. HUNTERIA, LEPINIOPSIS

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SUMMARY

The genera *Hunteria* and *Lepiniopsis* of the family Apocynaceae are in Malesia represented by one species each. Distribution and ecology are cited in full.

HUNTERIA

Hunteria Roxb., Hort. Beng. (1814) 84; Fl. Ind. 2 (1824) 531; ed. Carey 1 (1832) 695; Pichon, Mém. Mus. Hist. Nat. Paris n.s. 24 (1948) 160; Tsiang Ying, Fl. Reip. Pop. Sin. 63 (1977) 15; Huber, Rev. Handb. Fl. Ceylon 1 (1973) 10.

Laticiferous trees or shrubs with slender, terete branches. *Leaves* decussate, coriaceous, glabrous, with numerous straight lateral nerves. *Inflorescences* terminal, cymose, few-flowered, sometimes thrown aside by an axillary vegetative shoot. *Flowers* small, salver-shaped, pentamerous. *Calyx* lobes ovate, with pectinate glands inside. *Corolla* white, tube narrow, gradually dilated below the mouth, glabrous except inside at the insertion of the stamens. Corolla lobes short, obliquely ovate, auriculate, acute, overlapping to the left. *Anthers* inserted below the mouth, ovate, dorsally thickened. Disc none or indistinct. *Ovary* bipartite, glabrous. Style united of two. Stigma head attaining the anthers, short-cylindric, with 2 short appendage above. *Ovules* 2 in each carpel. *Fruit* apocarpous, of 2 spreading, stipitate mericarps (often only one developed). *Seeds* 1 or 2, shaped like coffee beans, dark, verrucose. Endosperm horny. Embryo straight, median, with leafy cotyledons.

Distribution. There are 4 species, of which 3 in tropical Africa.

Hunteria zeylanica (Retz.) Gardn.

H. zeylanica (Retz.) Gardn. ex Thw., En. Fl. Zeyl. (1864) 191; Tsiang Ying, Sunyatsenia 3 (1936) 135; Hend., J. Mal. Br. R. As. Soc. 17 (1939) 56; Wyatt-Smith & Kochummen, Mal. For. Rec. 17 (1965) 72; Huber, Rev. Handb. Fl. Ceylon 1 (1973) 10; Tsiang Ying, Fl. Reip. Pop. Sin. 63 (1977) 15–17, f. 4. – *Cameraria zeylanica* Retz., Obs. Bot. 4 (1786) 24. – Type: *Koenig s.n.* (BM), Ceylon.

H. corymbosa Roxb., Fl. Ind. 2 (1824) 531; ed. Carey 1 (1832) 695; Wight, Ic. 2 (1843) t. 4281; DC., Prod. 8 (1844) 350; Boerl., Bull. Inst. Bot. Btzg 5 (1900) 13; Hallier, Jahrb. Hamb. Wiss. Anst. 17, Beih. 3 (1900) 125; Boerl., Handl. 2 (1907) 93; Hunter, J. Str. Br. R. As. Soc. 53 (1909) 80; Ridley, op. cit. 59 (1911) 129; Fl. Mal. Pen. 2 (1923) 335; Rendle, J. Bot. 63 (1925) Suppl. 67; Burkill & Hend., Gard. Bull. Str. Settl. 3 (1925) 396; Pitard, Fl. Gén. I.-C. 3 (1933) 1129; Sealy, Kew Bull. (1956) 348; Gamble, Fl. Madras (1957) 568; Desch, Man. Mal. Timb. 1 (1957) 39, t. 6; Whitm., Tree Fl. Mal. 2 (1973) 15.

Tree or shrub 3–15 m, often with fluted bark. *Leaves* oblong-elliptic, apex acuminate, base rounded or cuneate, 9–18 by 3–9 cm, main lateral nerves 16–20 pairs, joined by a marginal nerve, petiole 7–8 mm. *Inflorescences* corymbose, peduncle 1.5–2 cm, corymb 2 by 3 cm. *Calyx* 0.8–1.2 mm. *Corolla* white, fragrant, tube 8 by 1 mm, lobes 3–4 by 1.2 mm. Mericarps at last black, globose, 15 mm, supracalycular stipe 2–8 mm. *Seeds* 2, ovoid, 4 by 2 mm.

Distribution. Sri Lanka, eastcoast of Deccan, Burma, Andaman Islands, Thailand, Indochina, Hainan, Kwangtung; in Malesia: Malay Peninsula, Sumatra, Anambas Islands.

MALAY PENINSULA. Kedah: FRI 13255; KEP 903, 6796; SF 35082. – Perak: Curtis s.n., Kunstler 1460. – Trengganu: FRI 13454. – Pahang: FRI 24104; Henderson 18407. – Selangor: KEP 36021, 79026, 97722, 115675; Sinclair 10724. – Negri Sembilan: ex Ridley.

SUMATRA. Lampong: Forbes 2716, 2722, 2738.

ANAMBAS ISLANDS. Siantan: van Steenis 948.

Ecology. Lowland rain forest, up to 180 m, undergrowth.

Vernacular names. Menggading (Kedah), kaju grading, kemuning (Selangor), gitan obat, tahoi (Lampong).

Uses. Against amenorrhoea; latex ('getah agu') against framboesia. The hard, yellow wood used for kris handles. The active substance is a very poisonous indolalcaloid.

LEPINIOPSIS

Lepiniopsis Valeton, Ann. Jard. Bot. Btzg 12 (1895) 249–253, t. 28, 29; Boerl., Handl. 2 (1899) 392; Merr., Bull. Bur. For. Philip. 1 (1903) 48; En. Philip. Fl. Pl. 3 (1923) 321; Markgr., Bot. Jahrb. 61 (1928) 171; Kanehira, Bot. Mag. Tokyo 45 (1931) 344; Kanehira & Hatusima, op. cit. 55 (1941) 496; Pichon, Mém. Mus. Hist. Nat. Paris n.s. 27 (1947) 168.

Laticiferous trees with alternate leaves. *Leaves* fleshy, with dense straight veins. *Inflorescences* trichotomous, without bracts. *Flowers* small. *Corolla* salver-shaped, with infolded, falcate lobes; contorted to the right. Stigma head fusiform, reaching the anthers. *Ovary* without disc, syncarpous, 3- to 5-locular, ovules 2 in each locule. *Fruit* syncarpous, plum- to spindle-shaped, with fibrous mesocarp and thin endocarp. *Seeds* few, thick, with sectorial outline and bony endosperm. Embryo cylindric, long, slightly curved, with shorter cotyledons.

Distribution. There are 2 species, one endemic in Central and East Malesia, the other one in Micronesia (Palau Islands).

Lepiniopsis ternatensis Valeton

L. ternatensis Valeton, Ann. Jard. Bot. Btzg 12 (1895) 252, t. 28, 29; Boerl., Handl. 2 (1899) 392; Merr., Bull. Bur. For. Philip. 1 (1903) 48; Int. Rumph. 3 (1917) 426; En. Philip. Fl. Pl. 3 (1923) 321; Markgr., Bot. Jahrb. 61 (1928) 171; Anonymus, Man. For. Trees Papua New Guinea 9 (19??) 31; Kanehira & Hatusima, Bot. Mag. Tokyo 55 (1941) 496. – Type: *Teijsmann s.n.* (L), Ternate, cult. Hort. Bog., IV-A-98, det. Valeton.
Pulassarius arbor Rumph., Herb. Amb. 3 (1743) 91, t. 60.
L. philippinensis Elmer, Leafl. Philip. Bot. 4 (1912) 1458.

Treelet or shrub 6–17 m, rich in white latex; branches 3-whorled, fleshy when young, buds laccate. *Leaves* alternate, elliptic to obovate, fleshy to coriaceous, glabrous, (9–)11–22(–26) by (3–)4–8 cm, base cuneate or sinuately tapering, top rounded with short, obtuse tip, rarely obtusely acuminate; petiole canaliculate, glandular at the inner base, (1–)2–3.5 cm, midrib thick, straight, prominent below, lateral veins indistinct, numerous, straight, 3 mm distant, with parallel interstitial ones, these often furcate. *Inflorescences* usually in alternating ternate groups. Peduncle angulate, (1–)5–7(–13) cm, di- or trichotomous, its last unbranched part thickened, flower-bearing without bracts. *Flowers* subsessile, probably dichasial (2–6 in a row according to Valeton), early caducous. *Calyx* lobes 5, circular, unequal, 2–3 mm diameter, ciliate, eglandular inside. *Corolla* white, salver-shaped, tube orange, 6–12 by 1 mm, inflated in the middle, constricted in the mouth, glabrous except inside below the anthers, lobes falcate, auriculate, 6–8 by 2 mm. *Anthers* inserted in the middle of the tube, ovate-oblong, 1.5 mm long, filaments 0.7 mm long. *Pollen* triporate. Stigma head fusiform, reaching the anthers. Disc none. *Ovary* globose, 5-locular, ovules 2 in each locule. *Fruit* syncarpous, red, sessile, 2.5–5 by 1.5–2 cm, ellipsoidal with more or less tapering base and top, exocarp membranous, mesocarp fibrous, endocarp thin, smooth, composed of fibres, seeds by reduction (1–)2–3 (–5), bony, each one filling a whole locule, sectorial in outline, longitudinally furrowed dorsally, on a broad, implicate placenta, 2–3 by 0.7 cm. Embryo dorsal, cylindric, slightly curved, cotyledons linear, 8 by 1.2 mm, radicle 15 by 1 mm.

Distribution. Central and East Malesia, east of the Wallace Line till New Guinea and the Bismarck Archipelago.

PHILIPPINES. Luzon: Camarines: ex Merrill. – Mindoro: BS 40833; PNH 17362, 37905, 37906; Ramos 9813. – Sibuyan: Elmer 12062, 12378. – Samar: PNH 17029. – Panay: BS 35339. – Siargao: BS 34872. – Mindanao: Wenzel 3060, 3145. – Negros & Cebu: ex Merrill.

CELEBES. Northwest: Meijer 10059, 10076, 10150. – East: Cel. 2-466; Kjellberg 2085. – Southwest: Teijsmann 12439.

TALAUD ISLANDS. H.J. Lam 2615, 2882, 3101.

MOLUCCAS. Morotai: bb 24559; Kostermans 777, 806, 897, 909, 1024, 1406. – Halmahera: Mochtar Idjan 306; de Vogel 3293, 4353. – Obi: de Vogel 4110. – Ternate: Beguin 1532; Hort. Bog. 5183, 5601, IV-A-98 (type of *L. ternatensis* Valeton); de Vriese 18. – Bacan: de Vogel 3521, 3791, 3871, 3923. – Batjan: bb 23128, 23193; de Haan 32. – Seram: Buwalda 5656; Kuswata & Soepadmo 91. – Ambon: van Hulstijn 107; Robinson 73; Teijsmann s.n.

NEW GUINEA. Numerous collections throughout the whole country, especially in the northwestern part. – Adjacent islands N of New Guinea: Ranki: van Royen 5389. – Job: BW 14910. – Pulu Faor: Beccari 29; BW 1074. – Jappen: bb 30432, 30574, 30590; van Dijk 750. – Nor-

manby I. (Milne Bay): LAE 52626, 68875. – Islands S of New Guinea: Adi: BW 7589, 11539.
NEW BRITAIN. LAE 75294; NGF 10042, 26550, 27221, 27246, 27315.
NEW IRELAND. Peekel 259.

Ecology. Undergrowth, usually scarce, in lowland rain forests up to 900 m, also in sago swamps; often common in wooded riverside patches, on sandy beaches, and in other open localities; on clay and sand. Fruits slightly swimming, but not belonging to the far-swimming Indo-Malayan strand flora.

Vernacular names. This tree has numerous names in the local languages of its area. In Ambon and Ternate 'pulassari' or 'pulassari pohon' is still recorded; in Halmahera 'pulausar', in Samar apparently changed into 'pilisnary'.

Uses. Owing to a weak scent like Iris rhizomes the roots are put between clothes or are used for a skin ointment.

Note. In this species there is some surprising variation in fruit shape: plum-shaped, shorter fruits versus spindle-shaped longer ones. As far as I could observe in herbarium material, the spindle-shape is produced usually by 1- or 2-seeded fruits with 3 or 4 empty, compressed locules. Apparently, as no widening is wanted by the lacking seeds, the available material is used for further elongation of the fruit wall. No taxonomic value can be attributed to this character. Also it does not have any definite geographical distribution.